Department of Health Care Access and Information
2020 West El Camino Avenue, Suite 800
Sacramento, CA 95833
hcai.ca.gov

HOSPITAL BUILDING SAFETY BOARD
Energy Conservation and Management Committee

Tuesday, June 14, 2022
10:00 a.m. – 4:00 p.m.

Teleconference Meeting Access:
HBSB Teams ECM Committee
Access Code: 840-158-903

Committee Members Present
Roy Lopez, Committee Chair
Scott Jackson, Vice-Chair
Louise Belair
David Bliss
Deepak Dandekar
Bruce Rainey

Consulting Members Present
Eric Johnson
David Lockhart

HCAI Staff Present
Arash Altoontash
Richard Tannahill
Larry Enright
Bill Gow
Carl Scheuerman
Jamie Schnick
Nanci Timmins
James Yi

HBSB Staff Present
Ken Yu, Executive Director
Evett Torres

1. Call to order and Welcome

Roy Lopez, Committee Chair, called the meeting to order on June 14, 2022, at 10:00 a.m., and HBSB Executive Director, Ken Yu called roll.

2. Roll Call and Meeting Advisories/Expectations

Seven members of the Committee present constitute a quorum. There being eight present, a quorum was established.

Mr. Yu read the public announcement regarding COVID-19, meeting rules and procedures.

3. Microgrid Task Force

Presenter: Jamie Schnick, HCAI

Mr. Schnick gave an update on the microgrid projects, which are five Skilled Nursing Facilities s in Northern California and Kaiser Ontario microgrid.

Mr. Schnick discussed the requirements for microgrids to be used as emergency power sources:

- Special Seismic Certification for DERs and components
- Use of listed products – UL 3001
- HCAI review of DERs
- 72 hours of on-site fuel storage for DERs
- Commissioning/retro-commissioning requirements

Mr. Schnick explained that the microgrid design guide would help with implementing microgrids in healthcare facilities where it can be used parallel with the normal system or as an emergency power source.

Mr. Schnick gave a list of the upcoming microgrid education events.

- PSPS presentation at CHSE (Silicon Valley) June 30th
- CSHE Microgrid Panel Presentation – SOCAL (Long Beach) Sept 20th
- CSHE Microgrid Panel Presentation – NORCAL (Fairfield) Oct 20th
- Health Facilities Symposium & Expo – (Long Beach) Sept 27th – 29th "Implementing Healthcare Microgrids at New/Existing Facilities."
- Microgrid 2023 (Anaheim) May 16th – 17th

Discussion and Input

Mr. Vernon discussed the NFPA-70 National Electrical, which has approved using microgrids as a power source. Mr. Griffiths asked where CMS licensing is in terms of the White Paper. Mr. Vernon stated that CMS is working on the licensing issue.

Mr. Vernon added that the board should be working on the fuel shortage issue. Mr. Schnick detailed that if there could be a fuel cell that uses natural gas and diesel as a backup, that would resolve the fuel shortage issue.

An interested party asked what HBSB uses as its definition of a microgrid. Mr. Schnick answered that a microgrid is multiple sources controlled by a microgrid controller that allows the onsite power generator to parallel the normal system and transition to island mode.

Mr. Bliss asked if, on the HCAI website, there is a list or subscription service where new education content is noticed out to interested parties. Mr. Schnick said that it was a good idea, and the board would look into that and put it up.

Mr. Bliss suggested the idea of using hydrogen to power the microgrids. He added that hydrogen could be easily made using water to power generators which may sort out the fuel shortage issue. Mr. Schnick added that hydrogen could also be made by using diesel generators to separate hydrogen from other chemicals and also using PVEs.

Mr. Griffiths asked how the committee would tackle the issues of channeling hydrogen as an energy source. Mr. Schnick answered that a study is looking into that since HCAI wants to use fuel cells that run on natural gas as a fuel source. Mr. Bliss explained that there is research going on and that in terms of channeling, aluminum pipes would be used.

Informational and Action item

- None

4. Presentation: Resiliency for Healthcare Facilities – How fuel cells play a key role

Presenter: David Smith, Bloom Energy

Mr. Smith said that Bloom Energy uses solid oxide technology for creating and using hydrogen as a fuel source. Mr. Smith explained that Bloom Energy helps healthcare facilities in the following ways:

- Controlling electrical cost – use of low electrical margins hence low energy cost leading to predictable energy cost.
- Reliable electrical grid – supports use of on-site microgrids.
- Sustainability – reduced water usage.

- Ensure good air quality – reducing harmful gas matter from diesel usage by putting those gases into fuel cells.

Mr. Smith highlighted that fuel cells work by combusting electrical chemicals fuel into electricity. The gases are methane, biogas, and hydrogen. Mr. Smith mentioned that the Bloom Energy system operates on a blend of natural gas and hydrogen.

Discussion and Input

Mr. Griffiths asked if the microgrid were a PPA project. Mr. Smith stated that the projects are handled in PPA format. During a utility power outage, Bloom Energy kilowatts help keep the power running and the system loaded and operating.

Mr. Griffith asked what the steps are in case of a PSPS warning. Mr. Smith stated that in case of an emergency warning, the customer can choose to go into elective microgrid mode and still have full capacity Bloom Energy until the grid falls out and is not available.

Mr. Dandekar asked how Bloom Energy would tackle the issue of natural gas being expensive in future. Mr. Smith explained that in future, there would be so much generation mix that relies on natural gas hence Bloom Energy will be cheaper.

Mr. Dandekar asked what was the percentage of methane gas used by Bloom Energy. Mr. Smith answered that it is probably 97% at the moment.

Mr. Bliss asked if it would be cheaper to have a direct hydrogen source than having to create the hydrogen. Mr. Smith stated that Bloom Energy does not use a lot to create the hydrogen because it is produced from the steam.

Information and Action item

- None.

5. Comments from the public/committee members on issues not on this agenda

Presenter: Roy Lopez, Committee Chair

Discussion and input

Mr. Lopez announced that the next Committee meeting will be September 13, 2022.

6. Adjournment

Mr. Lopez adjourned the meeting on June 14, 2022, at approximately 12:44 p.m.